

REMARKS/ARGUMENTS

The Applicant originally submitted Claims 1-16 in the application. In a previous response, the Applicant amended Claims 1, 5-9 and 13-15 and added Claims 17-20. In the present preliminary amendment, the Applicant amends Claims 1, 5-9 and 13-18. No subject matter has been added to the pending claims, which is not included in the original specification. No claims have been canceled. Accordingly, Claims 1- 20 are currently pending in the application.

I. Rejection of Claims 1-4 and 9-12 under 35 U.S.C. §102

Previously, the Examiner rejected Claims 1-4 and 9-12 under 35 U.S.C. §102(b) as being anticipated by the article entitled "Initial Wafer Heating Analysis for a SCALPEL Lithography System" written by Stanton, *et al.* As recognized by the Examiner, however, Stanton does not teach a plurality of different predictive models for producing predictive information and an estimator having a tunable strength parameter to determine an optimal adaptation weighting criterion as recited in amended independent Claim 1. (See Examiner's Final Rejection mailed June 13, 2005, page 2 and previous Claim 6.) Additionally, Stanton does not teach controlling projection electron lithography including producing predictive information related to a projection electron lithography process based on a plurality of different predictive models and selecting one of the plurality of different predictive models until a best one of the plurality of different predictive models emerges as recited in amended independent Claim 9. (See Examiner's Final Rejection, page 2 regarding previous Claim 13 and Figure 5 of Stanton.) Stanton, therefore, does not teach each element of amended independent Claims 1 and 9 and Claims dependent thereon. Thus, Stanton does not anticipate pending Claims 1-4 and 9-12. Accordingly, the Applicant respectfully requests the

Examiner to withdraw the §102 rejection with respect to Claims 1-4 and 9-12 and allow issuance thereof.

II. Rejection of Claims 1-3, 5-11 and 13-19 under 35 U.S.C. §102

Previously, the Examiner rejected Claims 1-3, 5-11 and 13-19 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,243,158 to Shiraishi. The Applicant respectfully disagrees, however, since Shiraishi does not teach controlling projection electron lithography including producing predictive information related to a projection electron lithography process based on a plurality of different predictive models for predictive information as recited in independent Claims 1, 9 and 17.

Shiraishi is directed to a projection exposure method that can improve alignment precision without sacrificing throughput. (See column 1, lines 9-15 and column 2, lines 62-64.) The Examiner has asserted that previously measured baseline values employed in the projection exposure method of Shiraishi equate to a plurality of different models for predictive information. (See Examiner's Final Rejection, page 8.) The previously measured values, however, are measurement data (see column 7, lines 65-66), not predictive models for producing predictive information. Additionally, the measured values are not **different** predictive models for producing predictive information but instead are each a numeric value that represents measurement data.

Shiraishi, therefore, does not teach each element of independent Claims 1, 9 and 17 and Claims dependent thereon. Thus, Shiraishi does not anticipate Claims 1-3, 5-11 and 13-19. Accordingly, the Applicant respectfully requests the Examiner to withdraw the §102 rejection with respect to Claims 1-3, 5-11 and 13-19 and allow issuance thereof.

III. Rejection of Claims 4, 12 and 20 under 35 U.S.C. §103

The Examiner has rejected Claims 4, 12 and 20 under 35 U.S.C. §103(a) as being unpatentable over Shiraishi in view of U.S. Patent No. 6,177,218 to Felker, *et al.* The Applicant respectfully disagrees.

As discussed above, Shiraishi does not teach a plurality of different predictive models for producing predictive information as recited in independent Claims 1, 9 and 17. Additionally, Shiraishi does not suggest a plurality of different predictive models for producing predictive information. Instead, Shiraishi discloses calculating a new baseline amount employing previously measured values. (See column 7, lines 25-64.) Thus, Shiraishi teaches employing measured values to calculate new values. The Applicant does not find, nevertheless, where Shiraishi teaches or suggests employing a plurality of different predictive models for producing predictive information as recited in independent Claims 1, 9 and 17.

Felker has not been cited to cure the above discussed deficiencies of Shiraishi but to teach a SCALPEL system. (See Examiner's Final Rejection, page 9.) Felker is directed to a lithographic process for device fabrication in which charged particle energy is used to delineate a pattern in an energy sensitive material. (See column 1, lines 13-18.) Accordingly, the cited combination of Felker and Shiraishi does not teach or suggest each element of independent Claims 1, 9 and 17 and does not provide a *prima facie* case of obviousness of Claims 4, 12 and 20 which depend thereon, respectively. Thus, Claims 4, 12 and 17 are not unpatentable over the cited combination and the Applicant respectfully requests the Examiner to withdraw the §103 rejection and allow issuance thereof.

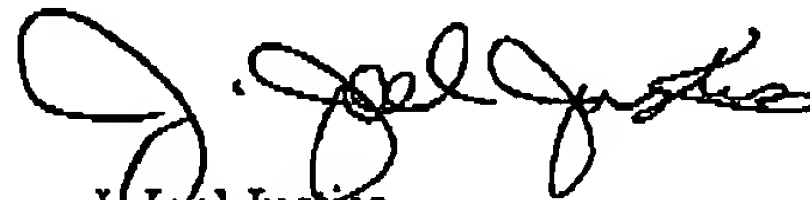
IV. Conclusion

In view of the foregoing amendment and remarks, the Applicant now sees all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicits a Notice of Allowance for Claims 1-20.

The Applicant requests the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application. The Commissioner is hereby authorized to charge any fees, credits or overpayments to Deposit Account 08-2395.

Respectfully submitted,

HITT GAINES, PC



J. Joel Justiss
Registration No. 48, 981

Dated: 8/19/05

P.O. Box 832570
Richardson, Texas 75083
(972) 480-8800